



# **Defense Standardization** **Program Conference** **Joint Standards Board for** **Power Source Systems**

Marc D. Gietter

Chairperson

Army Power Division









5 March 2008



# **JSBPS<sup>2</sup> MANDATE**



The purpose of the JSB for Power Source Systems is to:

-  Provide senior level visibility for standardization and interoperability initiatives.
-  Establish DoD Standards
-  Improve interoperability of forces.
-  Recommend joint doctrine, tactics, techniques and procedures.
-  Establish standardization of parts/components that have lowered cost, reduced inventories, shortened logistics chains and improved readiness.
-  Develop joint solutions to issues that impact the Power Source Systems domain.
-  Propose funding requirements for specific efforts/projects related to standardization and interoperability goals and objectives.
-  Provide the interface for commercial/military integration.



# March 2007



**EXPAND ON  
PAST**

**SUCCESSES**

**INSTITUTE  
POLICY  
CHANGES**

**REDUCE  
NUMBER**

**OF NSNs**

**BRING SUFFICIENT  
RESOURCES TO BEAR**

**INDUST  
RY**

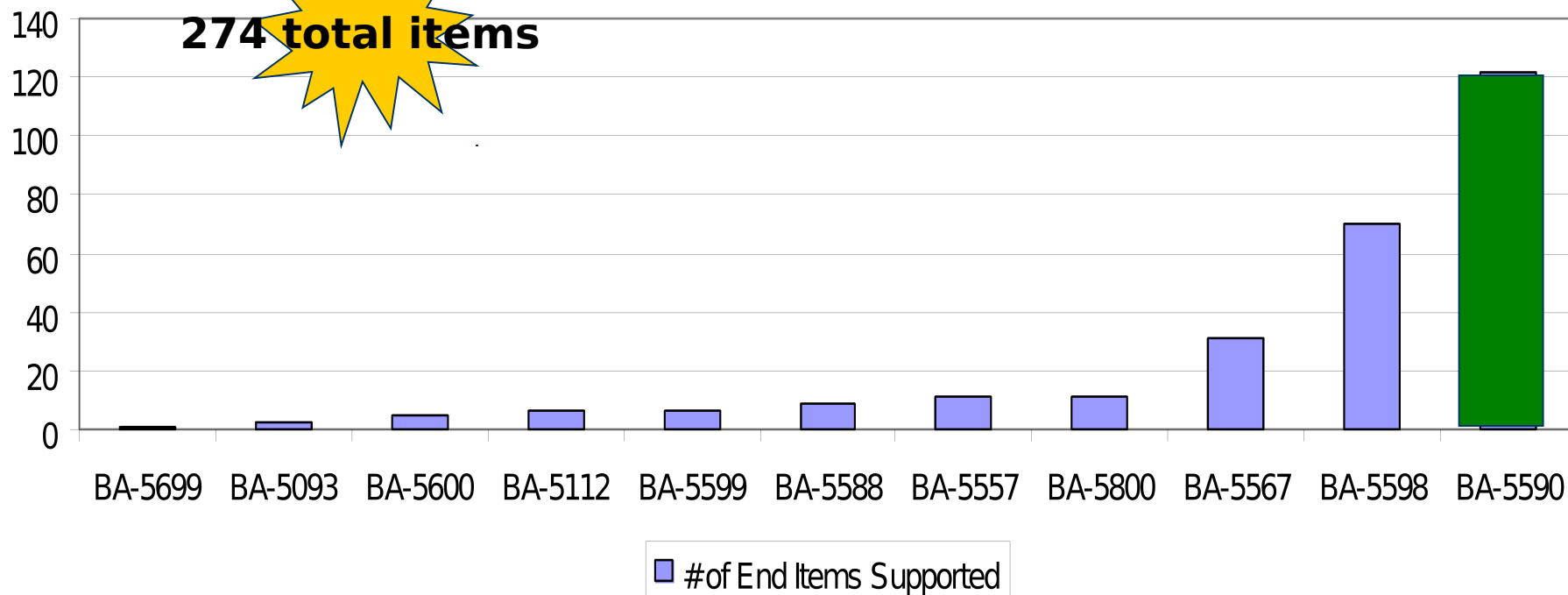
**JSB**

**DOD**

# *Build on previous success...*



*Army Family of Military Unique Batteries*





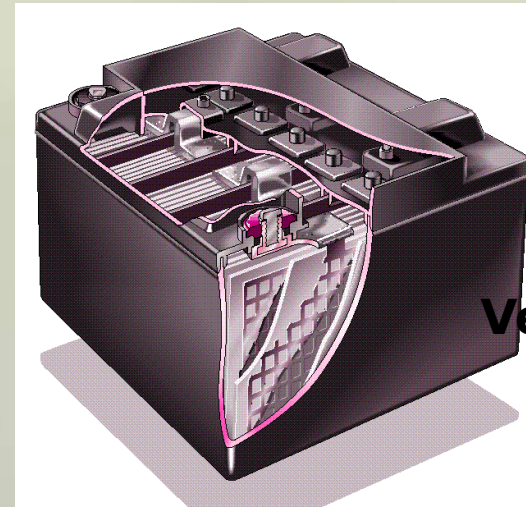
**Lithium Ion**



**Alkaline  
Cells**



**Commercial Chargers**



**Lead Acid  
Vehicle Batteries**

**Expand on use of standard commercial technologies**



MARCH 2008



**LACK OF RESOURCES   Pervasiveness  
OF POWER  
WHO CARES?**







# *The problems*



**NO ONE  
IS  
GUILTY!!**



# THE ISSUES



**WHO CARES**



**BASIC DATA**



Baby JSB

**Standardization**



**ALLOCATION  
OF RESOURCES**



**CONNECTORS**





## WHO CARES



### ➤ **INDUSTRY**

- Power source is last item to be considered in design
- It's a logistics problem
- Get paid to design new source
- Contractor part number-continual source of income

### ➤ **Government PM**

- Not a critical parameter
- It's a logistics problem
- Get it fielded
- System performance is key
- Contractors are "always right"

### ➤ **Standardization**

- Last to know
- Not in the approval loop
- Lots of other things to keep track of

**ISSUE - ELIMINATE THE "CONSPIRACY OF COMPLACENCY"**



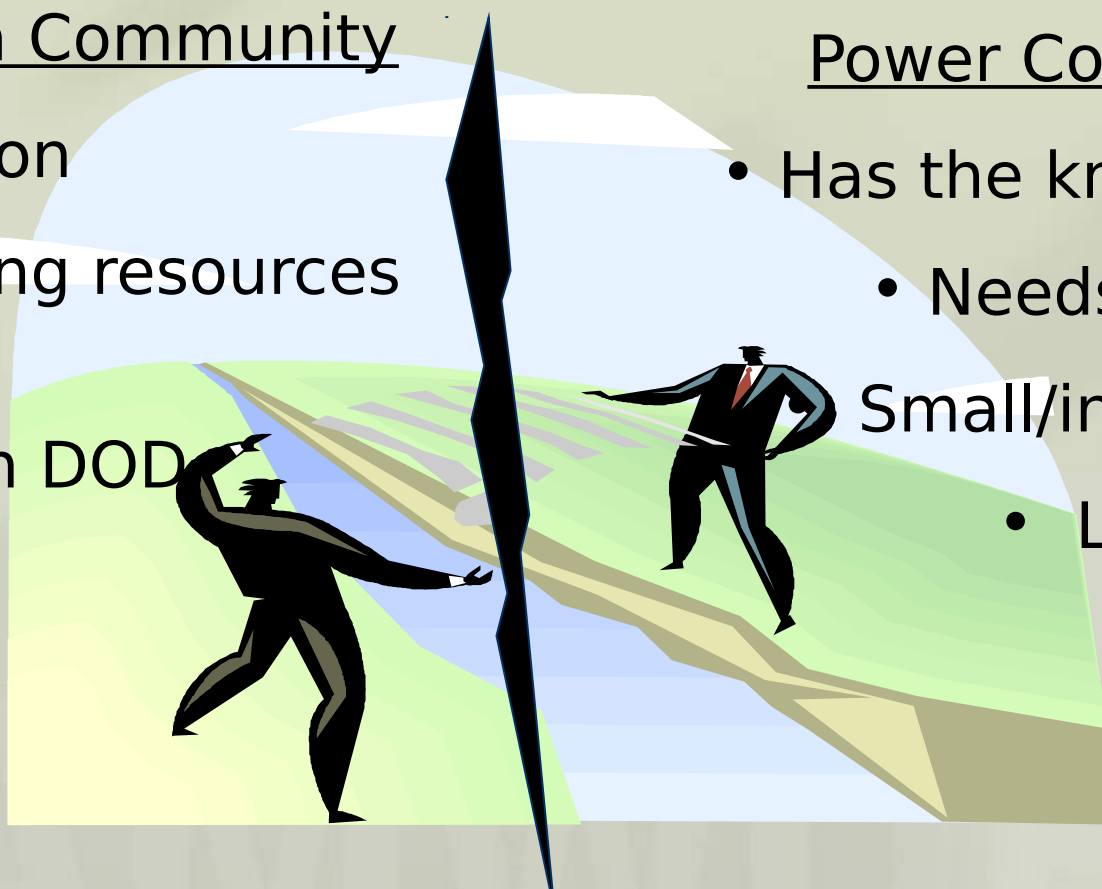
## ALLOCATION OF RESOURCES

### Standardization Community

- Has the mission
- Has the funding resources (?)
- Diverse within DOD
- Lots to do

### Power Community

- Has the knowledge
  - Needs funding
- Small/integrated
- Lots to do



**ISSUE - GETTING THE RIGHT PEOPLE INVOLVED**



## BASIC DATA

- Technical data in FEDLOG needs to be updated
  - Data is missing
  - Incorrect
  - Out of date

### **Battery PSCV Data**

**\* 2800 NSNs**

**\* 11,000 lines of data**

- Battery FIIG need to be updated to address current technologies
- Manage company provided data (embellishments)

**ISSUE - GETTING THE DATA CORRECTED -  
MAJOR IMPACT ON POWER SOURCES COHERENT VIEW**



## **CONNECTORS**

**POWER SOURCES ARE NOT LIKE,  
“O” RINGS, WASHERS, MREs OR TENTS,  
ITS ALL ABOUT CONNECTORS, STUPID!!**

**ISSUE - IMPACTS ABILITY TO STANDARDIZE  
LEGACY SYSTEMS**

**-IMPACTS ON INTEROPERABILITY OF  
JOINT/COALITION FORCES**



Same Basic Form Factor  
Same WarFighter Mission  
Same Battery Voltage





Radio Connector -  
Both fit the other radio  
Only one will power the other radio - with error  
message





Charger Connector -  
No Way Interchangeable



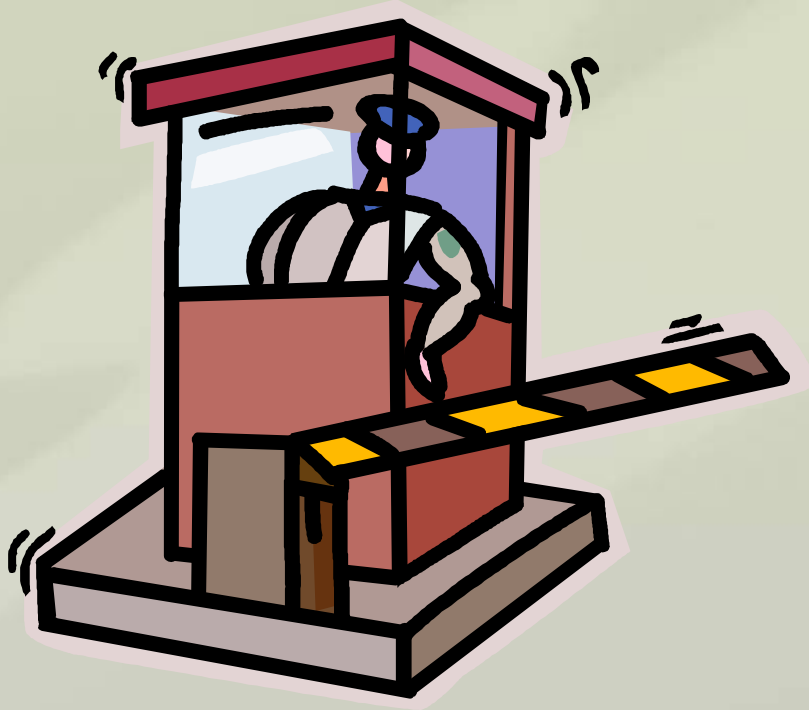
# Standardization Run Amok?



“The rifleman in each section responsible for the Lightweight Thermal Weapons Sight (LTWS) might carry 80 AA batteries each weighing 0.375 lbs . This rifleman will be carrying batteries weighing a total of 30lbs in addition to the weight of the LTWS equipment itself.”

**The obvious solution might not be the optimum solution.**

# The Gatekeeper



- 💣 In the approval chain
- 💣 Have “clout”
- 💣 Enforce existing policies
  - 💣 Use standard items
  - 💣 Best fit solution
  - 💣 Consider life cycle costs
- 💣 Ensure the “exception” is the exception and not the “rule”



### AN/PVS 14 (Night Vision)

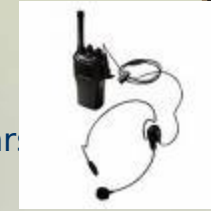
(2) AA  
1 lbs/30 hrs



**Melios**  
(1) BB 516  
.59 lbs/12 hrs

### Head Set

(2) AA  
.1 lbs/270 hrs



### HTWS (Night)

(6) AA  
.3 lbs/7 hrs



### M68 CCO (Day)

(1) DL 1/3N  
.04 lbs/75 hrs



### Sure Fire Light

(2) CR-123A  
.12 lbs/1 hr



### Mag Lite

(2) AA  
.1 lbs/100 hrs

### PEQ-2A

(2) AA  
.1 lbs/100 hrs



### MBITR

(1) BB 521,  
.88 lbs/8 hrs



### ICOM F43

(1) BP 196  
.35 lbs/8 hrs



### P-Beacon

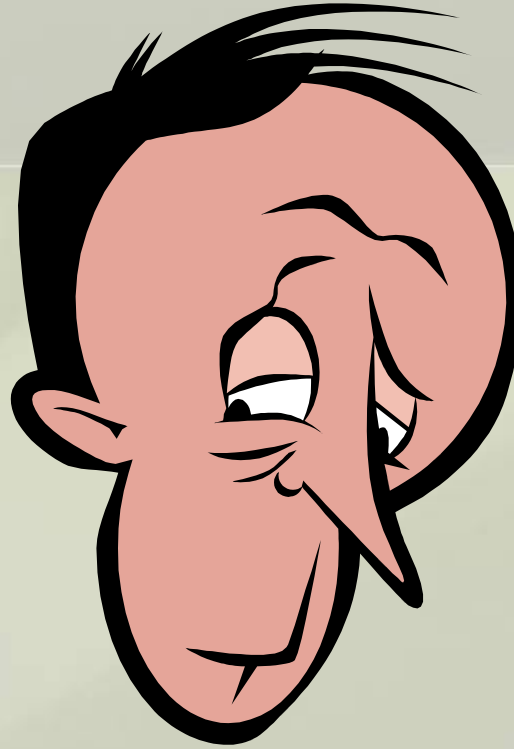
(1) 9V  
.1 lbs/100 hrs



**Battery  
Requirements for  
the Platoon Leader**

**12 end items - 7  
battery types**

What Happens when  
There is no Gatekeeper



**ALL IS NOT LOST!**



# Keys to Success



- 🔋 Provide resources
  - 🔋 Manpower
  - 🔋 Funding (internal and contract)
- 🔋 Get Coherent View operational
  - 🔋 identify legacy power sources for elimination/updating to new technologies
  - 🔋 Identify potential solutions for new weapon systems
  - 🔋 Identify preferred power source types
  - 🔋 Identify commercial products tested by military agencies
- 🔋 Standardize on future connectors
- 🔋 Develop DOD preferred batteries
- 🔋 Establish power of the “Gate Keeper”<sub>20</sub>





# *Other Efforts*

- 💡 Development of a fuel cell specification
- 💡 Working on fuel cell output and fuel input connectors
- 💡 Soldier System connector standardization
- 💡 Update FIIG
- 💡 Update FLIS data (funding permitting)
- 💡 Work with NDIA Power Forum
- 💡 Establish JSBPS<sup>2</sup> Steering Committee (all are invited)



# What I Need From You!

- 💡 Support for JSB Power Sources efforts
- 💡 Help identify key resources to assist the effort
- 💡 Points of contact are:

**Marc Gietter**

**JSBPS<sup>2</sup> Chairman**

**Marc.d.gietter@us.army.mil**

**(732) 532-6764**

**James Gucinski**

**JSB PS<sup>2</sup> Secretariat**

**jag@tiburonassociates.com**

**812-825-4355**